Claims

1. A method for data exchange between network elements having a first network element (A) arranged in a first network domain (DMA) with an address (ADA) that is valid in the first network domain (DMA),
a second network element (B) arranged in a second network domain (DMB) with an address (ADB) that is valid in the first network domain (DMA),
a network node device (GW) arranged between the network domains (DMA, DMB) for forwarding a data packet (DP) to be sent by the first network element (A) to the second network element (B),
wherein
the data packet (DP) consists of a characterizing part (HEAD) and a data part (DATA),
the destination address (ADB) characterizing the receiving network element (B) in the characterizing part (HEAD) of the data packet (DP) is translated under the control of the network node device (GW) into a destination address (ADB') that is valid in the second network domain (DMB), characterized in that the first network element (A) enters in the data part (DATA) its source address that is to be specified in the data part (DATA) of the data packet (DP) as the source address of the first network element (ADA') that is valid in the second network domain (DMB).

2. The method as claimed in claim 1,
characterized in that
the first network element (A) enters in the data part (DATA) a destination address of the second network element (B) that is to be specified in the data part (DATA) of the data packet (DP) as the destination address (ADB') that is valid in the second network domain (DMB).

3. The method as claimed in one of the claims 1 or 2, characterized in that
in order to forward a data packet (DP) to be sent by the second network element (B) to the first network element (A), the second network element (B) enters in the data part (DATA) the source address to be specified in the data part (DATA) of the data packet (DP) as the source address of the second network element (ADB) that is valid in the first network domain (DMA).

4. The method as claimed in one of the preceding claims, characterized in that
in order to forward a data packet (DP) to be sent by the second network element (B) to the first network element (A), the second network element (B) enters in the data part (DATA) the destination address of the first network element (A) to be specified in the data part (DATA) of the data packet (DP) as the destination address (ADA) that is valid in the first network domain (DMB) [sic].

5. The method as claimed in one of the preceding claims, characterized in that
the network element (A; B) determines its source address (ADA'; ADB), valid in the respective other network domain (DMB; DMA), of the network element (B; A) that is to take part in a data exchange with the aid of a discovery procedure that takes place before the data exchange.

6. The method as claimed in claim 5, characterized in that
the discovery procedure includes the following steps:
- sending of a discovery message (DP1, DP1') by the first network element (A) to the second network element (B) arranged in the second network domain (DMB) with a destination address (ADB) of the second network element (B)

that is contained in the data part (DATA1) and is valid in the first network domain (DMA);

- reception of the discovery message (DP1, DP1') by the second network element (B) and storage of the destination address (ADB) of the second network element (B) that is valid in the first network domain (DMA);
- sending of a response message (DP2, DP2') by the second network element (B) to the first network element (A) with a destination address (ADA') of the first network element (A) that is contained in the data part (DATA2) and is valid in the second network domain (DMB); and
- reception of the response message (DP2, DP2') by the first network element (A) and storage of the destination address (ADA') of the second network element (B) that is valid in the second network domain (DMB).

7. A computer program product containing program code for performing the method as claimed in one of the claims 1 to 6 when the computer program product is executed on a computer unit assigned to the network elements (A; B).

8. A network element for performing the method as claimed in one of the claims 1 to 6.

9. The network element as claimed in claim 8,
characterized by
an embodiment as a communication terminal communicating according to a packet-oriented method.